



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/807,954 | 03/24/2004 | Ian J. Forster | AVERP3643US | 4083 |

7590 11/28/2005
Jonathan A. Platt
Renner, Otto, Boisselle & Sklar, LLP
Nineteenth Floor
1621 Euclid Avenue
Cleveland, OH 44115-2191

EXAMINER

LAI, ANNE VIET NGA

ART UNIT PAPER NUMBER

2636

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,954

Applicant(s)

FORSTER, IAN J.

Examiner

Anne V. Lai

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 24, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-47 is/are rejected.
- 7) ☒ Claim(s) 2 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities:

The antennas of claim 2 have been claimed in claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 14, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 15, 22, 31-32, 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Hont [US. 5,955,969].

In claim 15, **D'Hont** discloses a system for detecting radio-frequency identification devices, the system comprising: an RFID reader for detecting the RFID devices within a designated area; and one or plural jamming signal transmitters to prevent detection of RFID devices outside of the designated area (col. 7, lines 37-65) (jamming transmitter pair is inherent since one can place the plurality of transmitters at any place at will).

In claim 22, **D'Hont** discloses the designated area is an area through which pass objects having attached RFID devices (AVI system; desired read zone in fig. 1).

In claim 31, **D'Hont** discloses the reader is operatively coupled to the jamming signal transmitters (figs. 1-4).

In claim 32, **D'Hont** discloses a method for selectively detecting radio-frequency identification (RFID) devices, the method comprising: using jamming signal transmitters to inhibit operation of RFID devices outside of a designated area; and detecting RFID devices within the designated area (fig. 1-4; col. 5, lines 33-53; col. 7, line 37-43).

In claims 37-38, **D'Hont** discloses the detecting includes using an RFID reader to detect the RFID devices and the reader is at least partially within the designated area (col. 7, lines 44-65).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Garber** [US. 6,424,262] in view of **Narlow** [US. 5,517,195].

In claims 1-9, **Garber** discloses an RFID device comprising a first antenna responsive to RF interrogation signal from a reader and a second antenna (“keeper” or bias elements not shown) responsive to low frequency alternating magnetic field to alter or inhibit the ability of the other antenna to respond to the reader (combination tag 20d; fig. 3; col. 4, line 57 – col. 5, line 5; col. 8, lines 20-25; col. 9, line 17-34), therefore the action of jamming is provided by the alternating magnetic field; the two antennas are coupled to a chip. The structure of the second antenna of Garber is not shown however it is well known in the art as shown in **Narlow** (figs. 1-3), a first dual frequency antenna circuit 26 on first planar side 14 (fig. 1) in parallel with a second loop antenna 28 (deactivation circuit) on second planar side 16 (figs. 2-3; abstract; col. 1, line 58 – col. 2, line 38).

In claim 10, the chip coupled to the antennas is shown in Garber element 12 of fig. 3, and in Narlow the diode 54 of figure 3.

In claim 14, Garber discloses one of the antennas includes a magnetic material element mechanically coupled to the other of the antennas to affect the tuning of the other of the antennas (magnetic responsive elements; keeper elements; col. 4, line 57- col. 5, line 5; col. 9, lines 17-34).

7. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined **Garber** and **Narlow** in view of **Holland** [US. 4,746,830] and further in view of **Plows** [US. 4,242,671].

In claim 11-12, **Garber combined** fails to disclose one of the antennas includes piezoelectric material; **Holland** (Figs. 2-4) teaches a low cost RF tag using piezoelectric substrate coupled to a chip and antennas to echo ID signal to the reader (claim 1); and **Plows** teaches the use of piezoelectric substrate as part of a mechanically resonant element in a transponder tag provides significant delay in echoing signal that makes the signal distinguishable from the interrogation signal therefore increase the efficacy of the system (col. 1, lines 24- 65). In light of the teaching of Holland and Plows, it would have been obvious to one of ordinary skill in the art at the time the invention was made, one can use piezoelectric resonant technique in ID transponder to provide low cost and efficacy RFID system.

8. Claims 16-17, 24-27, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D'Hont**.

In claims 16-17, 24-27, 39-42, **D'Hont** discloses the jamming signals can be generated at different points and from multiple antennas (col. 7, lines 37-43); therefore it would have been obvious to one having ordinary skill in the art the antennas positions and orientations are based on user choice to provide best shielding and best reading of object ID.

9. Claims 18-21, 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D'Hont** in view of **Garber combined** and further in view of **Novikoff** [US. 4,016,553].

D'Hont fails to disclose jamming signal transmitter with a pair of low-frequency field generators of opposite phase; **Garber combined** teaches an RFID can be jammed

Art Unit: 2636

(deactivated) by exposing to a low frequency magnetic field (above 100 KHZ, alter the ability of the marker to switch; col. 4, line 57- col. 5, line 5) and **Novikoff** teaches a transmitter formed with parallel loops connected in phase opposition to provide far distance cancellation (abstract). In light of the teaching of Garber combined and Novikoff, it would have been obvious jamming can be provided with a range of low frequency magnetic field and the jamming transmitters are preferred to be in pair of opposite phase to avoid jamming far beyond the jamming zone.

10. Claims 23 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D'Hont** in view of **Garber combined**.

In claim 23, **D'Hont** discloses the RFID is to be read on a moving object (fig. 1); **Garber** discloses the RFID can be carried on a conveyer (col. 6, lines 59-62). It would have been obvious the use of the conveying means is based on the type of application and can be choose by the user.

In claim 47, **Garber combined** discloses the RFID can be desensitized by a magnetic jamming signal (Garber, col. 4, lines 57- col. 5, line 5; Narlow, abstract).

11. Claims 28 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D'Hont** in view of **De Souza** [US. 2004/0012496].

In claims 28 and 43, D'Hont fails to disclose jamming with optical energy; De Souza teaches jamming the RFID with light of predetermined frequency (disable the cooperation between the RFID circuitry and the antenna; abstract). It would have been obvious the type of communication medium is based on designer or user choice for

Art Unit: 2636

each particular application and the jamming signal can be selected based on the type of communication medium for best efficacy or the system.

12. Claims 29-30, 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D'Hont** in view of **Rodgers** [US. 6,340,932] or **Reade** [US. 2004/0100359].

In claims 29-30, 44-46, **D'Hont** fails to disclose jamming with infrared or acoustic energy; **Reade** teaches a variety of jamming techniques using passive or active device including exciting the RFID with a signal strength much greater than the signal strength of the RFID, or transmitting a signal of sufficient frequency strength over a frequency spectrum that one wish to jam ([0008]-[0014], [0037]-[0041]); **Rodgers** teaches the communication between the reader and the RFID can be in infrared or other optical frequencies, ultrasonic or other audio frequencies (col. 7, lines 31-35; col. 9, lines 2-9; col. 19, lines 53-63). In light of the teaching of Reade and Rodgers, it would have been obvious to one of ordinary skill in the art at the time the invention was made, the jamming signal can be of optical, infrared or acoustic depending on communication media used by the system (infrared, optical, acoustic, piezoelectric), one can jam the communication using the same media with much higher frequency.

Allowable Subject Matter

13. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Art Unit: 2636

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne V. Lai whose telephone number is 571-272-2974.

The examiner can normally be reached on 9:00 am to 6:30 pm, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass Jeffery can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AVL

11/15/05



JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600